

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
24 June 2004 (24.06.2004)

PCT

(10) International Publication Number
WO 2004/052937 A2

- (51) International Patent Classification⁷: C08F (74) Agent: MYERS BIGEL SIBLEY & SAJOVEC, P.A.;
P.O. Box 37428, Raleigh, NC 27627 (US).
- (21) International Application Number: PCT/US2003/035217 (81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (22) International Filing Date: 3 November 2003 (03.11.2003)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data: 60/423,804 5 November 2002 (05.11.2002) US (84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).
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- Published:
— without international search report and to be republished upon receipt of that report
- For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

(54) Title: HYDROGENATION OF POLYMERS IN THE PRESENCE OF SUPERCRITICAL CARBON DIOXIDE

(57) Abstract: A method of hydrogenating a polymer comprises: (a) providing a dense phase, the dense phase comprising a polymer in a solvent; (b) providing a catalyst system, the catalyst system comprising at least one metal hydrogenation catalyst (preferably including nickel or ruthenium); and (c) providing a light phase, the light phase comprising, consisting of or consisting essentially of hydrogen and carbon dioxide; and (d) contacting the dense phase, the light phase and the catalyst system under conditions in which the hydrogen reacts with the polymer and hydrogenates the polymer.

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